Trash and Debris Management Publications, Reports, and Presentations

- March, P. A., M. Ratliff, and P. Kirchner, "Correcting Trashrack Failure at a Pumped-Storage Project," *Hydro Review*, July 2013, pp. 110-116.
- March, P., P. Wolff, and P. Jacobson, "Effects of Markets and Operations on Suboptimization of Pumped Storage and Conventional Hydroelectric Plants," *Proceedings of HydroVision 2013*, Tulsa, Oklahoma: PennWell Corporation, July 2013 (to be presented).
- Ratliff, M., P. March, and P. Kirchner, "Failure Forensics and Re-Design of Reversible Flow Draft Tube Trash Racks at a Pumped-Storage Plant," *Proceedings of HydroVision 2012*, Tulsa, Oklahoma: PennWell Corporation, July 2012.
- March, P., P. Wolff, P., B. Smith, Q. Zhang, R. Dham, "Data-Based Performance Assessments for the DOE Hydropower Advancement Project," *Proceedings of HydroVision 2012*, Tulsa, Oklahoma: PennWell Corporation, July 2012.
- March, P. A., and C. Vansant, *Hydropower Technology Roundup Report: Trash and Debris Management at Hydroelectric Facilities*, Palo Alto, California: Electric Power Research Institute, Report No. 1012738, February 2007.
- March, P. A., and P. J. Wolff, "Component Indicators for an Optimization-Based Hydro Performance Indicator," HydroVision 2004, Montréal, Québec, Canada, August 2004.
- March, P. A., "Method and apparatus for monitoring a hydroelectric facility trash rack and optimizing performance," U. S. Patent No. 6,269,287, July 31, 2001.
- March, P. A., "The WaterView System: Trash Rack Module," WaterView Training, Norris, Tennessee: Hydro Resource Solutions LLC, December 2000.
- March, P. A., "Improving Hydro Production by Reducing Trash Rack Losses," Maryville, Tennessee: Eclectic Technologies, Report No. 9901, May 1999.
- March, P. A., "Method and apparatus for monitoring a hydroelectric facility trash rack," U. S. Patent No. 5,800,077, September 1, 1998.
- Jones, R. K., P. A. March, D. B. Hansen, and C. W. Almquist, "Reliability and Efficiency Benefits of Online Trash Rack Monitoring," *Proceedings of Waterpower 97*, August 1997.
- March, P. A., "Evaluation of Trash Rack Losses at High Rock, Tuckertown, Narrows, and Falls Hydro Plants," Report 9702, April 1997.
- March, P.A., "Preliminary Recommendations for Efficiency Improvements at Tapoco Hydroplants," Report No. 89-2, July 1989.
- March, P.A., and C.W. Almquist, "Techniques for Monitoring Flowrate and Hydraulic Fouling of Main Steam Condensers," *Proceedings of the Electric Power Research Institute Condenser Technology Symposium*, CS-5942-SR, September 1988.

March, P.A., and S. Vigander, "Model/Prototype Comparisons of Trashrack Vibrations," *Proceedings of the 1982 ASCE Hydraulics Division Specialty Conference*, Jackson, Mississippi, August 1982.

Schohl, G.A., and P.A. March, "Modal Testing of Trashrack at Hiwassee Dam," *Proceedings of the 1982 ASCE Hydraulics Division Specialty Conference*, Jackson, Mississippi, August 1982.

Schohl, G.A., and P.A. March, "Modal Analysis and Vibration Monitoring of Trashrack Structures," Norris, Tennessee: Tennessee Valley Authority, Engineering Laboratory No. WR28-1-5-100, June 1981.

March, P.A., and S. Vigander, "Trashrack Vibration Studies, Raccoon Mountain Pumped-Storage Plant," Norris, Tennessee: Tennessee Valley Authority, Engineering Laboratory Report No. 43-47, Revised March 1979.

Crandall, S., S. Vigander, and P.A. March, "Destructive Vibration of Trashracks due to Fluid-Structure Interaction," *ASME Journal of Engineering for Industry*, Vol. 97, November 1975.

Contact information:

Patrick A. March
President and Principal Consultant
Hydro Performance Processes Inc. (EIN 20-1959788)
98 Steeplechase Dr., Doylestown, Pennsylvania 18901-5717
pamarch@hydroppi.com; pamarch@gmail.com

Cell Phone: 1.865.603.0175